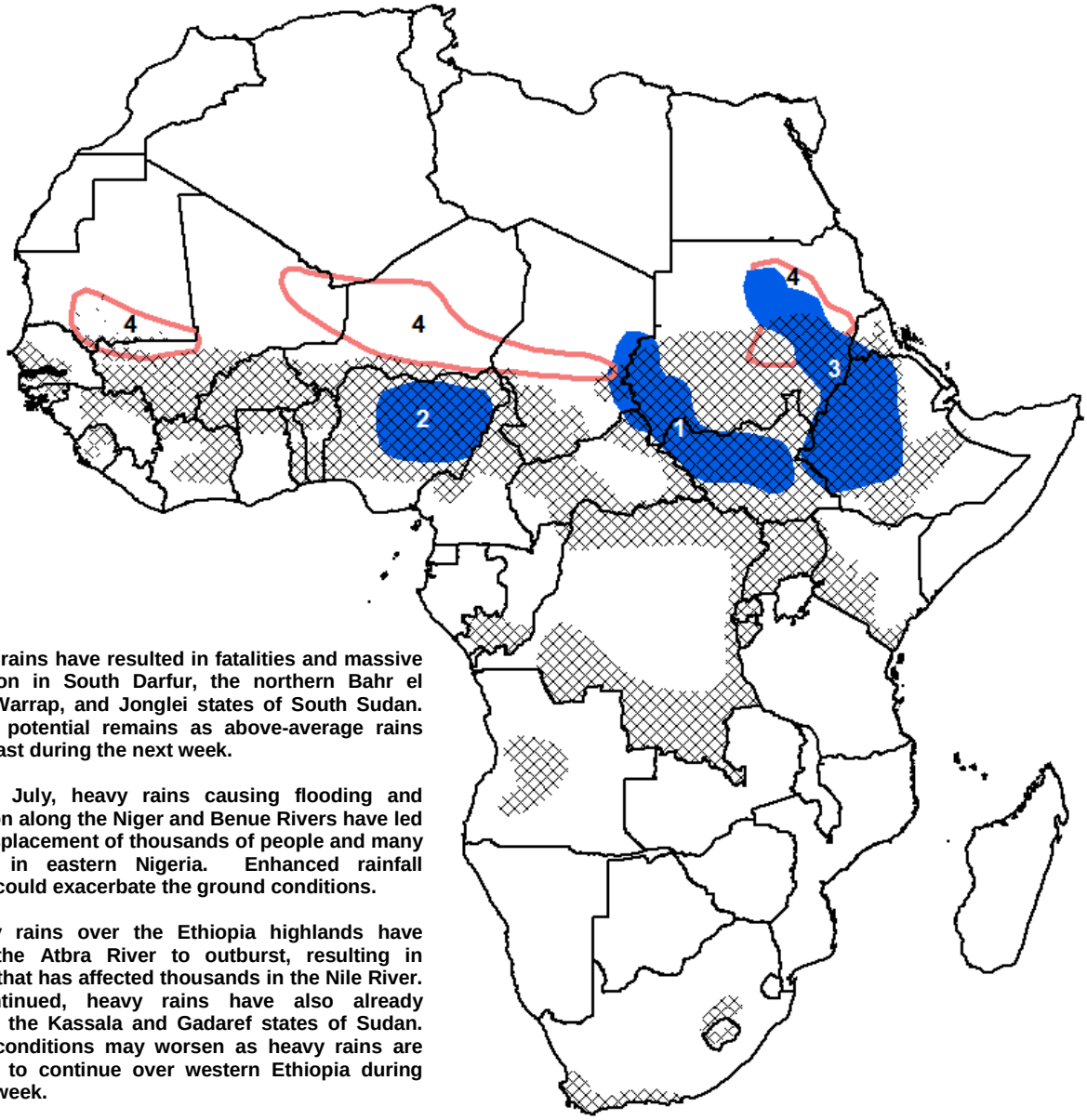
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
September 13 – September 19, 2012

- **The persistence of above-average moisture conditions has sustained the potential for flooding, river inundation, locusts, and water-borne disease outbreaks across many regions of western and eastern Africa.**



1) Heavy rains have resulted in fatalities and massive destruction in South Darfur, the northern Bahr el Ghazal, Warrap, and Jonglei states of South Sudan. Flooding potential remains as above-average rains are forecast during the next week.

2) Since July, heavy rains causing flooding and inundation along the Niger and Benue Rivers have led to the displacement of thousands of people and many fatalities in eastern Nigeria. Enhanced rainfall forecast could exacerbate the ground conditions.

3) Heavy rains over the Ethiopia highlands have caused the Atbra River to outburst, resulting in flooding that has affected thousands in the Nile River. The continued, heavy rains have also already impacted the Kassala and Gadaref states of Sudan. Ground conditions may worsen as heavy rains are expected to continue over western Ethiopia during the next week.

4) Both anomalous seasonal rainfall and northward position of the Inter-Tropical front has favored breeding conditions for desert locusts over the southern Mauritania-western Mali border, central Niger-eastern Mali, Chad, and east-central Sudan. The continuation of above-average rainfall during September could lead to locust outbreak across many regions.

No break to heavy rains throughout parts in the West.

During the last seven days, a continuation of enhanced precipitation was observed throughout many portions of West Africa. The highest weekly precipitation accumulations were experienced throughout many local areas in southern Senegal, The Gambia, and Guinea-Bissau with ground measurements reporting rainfall amounts in excess of 100mm. Off to the east, ample rainfall amounts were also received across the Mopti and Segou provinces of central Mali. Across portions of southern Niger and western Nigeria, a reduction of weekly precipitation was observed compared to previous weeks. However, well-distributed heavy rains (50>mm) continued throughout much eastern Nigeria during the last week (**Figure 1**).

Since early August, several consecutive weeks of enhanced rainfall has led to a robust distribution of moisture surpluses across the African Sahel. The highest rainfall surpluses are observed over parts of southern Mauritania, Mali, Burkina Faso and southwestern Niger, as many local areas in these countries have experienced over twice their normal rainfall accumulation over the last 30 days (**Figure 2**). The seasonally anomalous rains have elevated the risk for localized flooding, river basin inundation, and enhanced environmental conditions for locust outbreak and migration in the Sahel. Since August, locally heavy rainfall has already resulted in flooding and fatalities over the Gambia and many regions of Nigeria, and a continuation of oversaturation is likely to increase waterborne disease outbreaks across parts of costal West Africa. Although the above-average moisture conditions are generally beneficial to cropping activities, an excess of moisture could also destroy crops and ultimately reduce yields by end of season.

For upcoming outlook period, there is a high probability for heavy rains to continue across West Africa, with the highest amounts forecast over portions of Guinea, Mali, Niger, and eastern Nigeria.

Widespread heavy rains hit coastal South Africa.

In addition to the wet conditions in western and eastern Africa, portions of Lesotho, Swaziland and the Kwa-Zulu Natal region observed unseasonably heavy rainfall during the last seven days. The anomalous event produced rainfall accumulations in excess of 100mm in many local areas, with some coastal areas receiving over 200mm. These heavy rains over a short period triggered localized floods, and damages to infrastructure. The excessive rains caused extreme runoff anomalies observed from Lesotho to Swaziland, affecting the much of the Kwa-Zulu Natal state, as well as the Free State and Mpumalanga state of South Africa.

Satellite Estimated Rainfall (mm)
Valid: September 2nd – September 8th, 2012

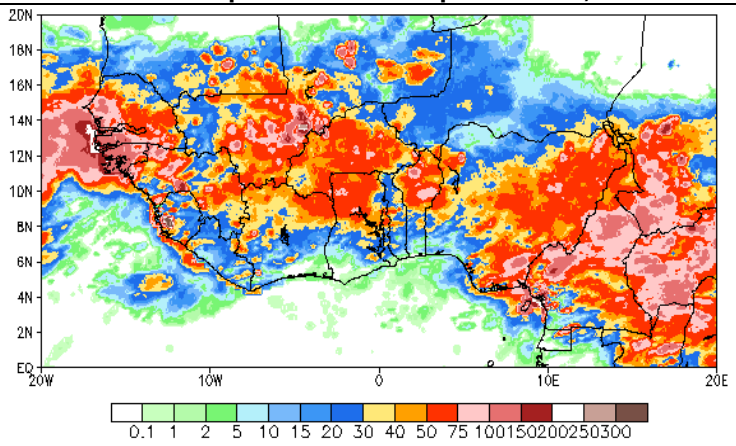


Figure 1: NOAA/CPC

Satellite Estimated Rainfall Percent of Normal (%)
Valid: August 10th – September 8th, 2012

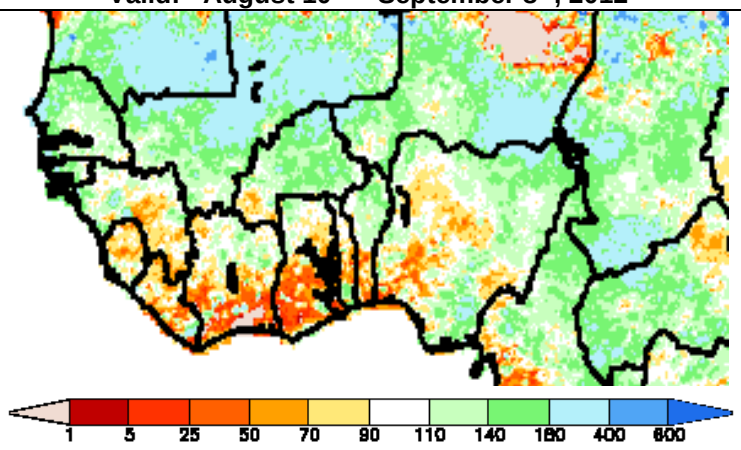


Figure 2: NOAA/CPC

Daily Runoff Anomaly
Valid: As of September 6th, 2012

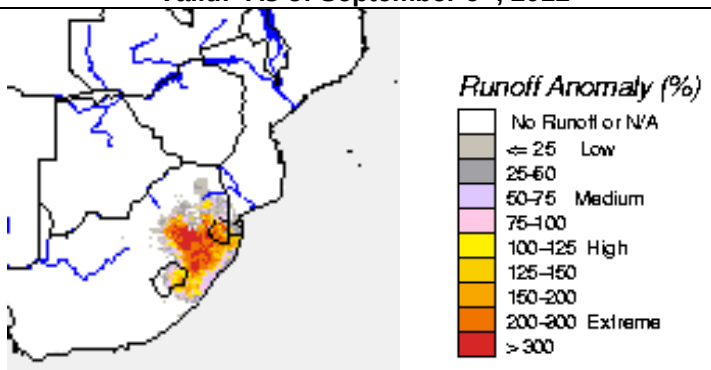


Figure 3: USGS/EROS

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.